



WESTERN ORE OPERATIONS
P. O. BOX 569
LANDER, WYOMING 82520

April 11, 1977

Mr. Ronald W. Daniels
Coordinator of Mined Land Development
Division of Oil, Gas and Mining
Department of Natural Resources
State of Utah
1588 West North Temple
Salt Lake City, Utah 84116

Re: Notice of Intention to Continue
Operations - Keigley Quarry and
Desert Mound Mine, Utah

Dear Mr. Daniels:

This letter is in reply to your recommendations on our Preliminary Notice of Intention to Continue Mining Operations dated January 27, 1977.

We are sorry that it has taken so long to get back to you, but we have had some changes in personnel due to retirements and transfers.

The Preliminary Notice of Intention to Continue Mining Operations for both our Desert Mound Operations and Keigley Quarry are enclosed. They have been changed in most areas to conform to your recommendations. In other cases we have included an explanation. The map for Keigley Quarry has been modified and includes notes as to drill holes, canal names, abandonment of unusable buildings, etc., and a revised copy is attached. You should have a copy of our Desert Mound map in your files.

If these notices meet with your approval, let us know and we will submit them in final form with the required signatures.

Yours very truly,

A handwritten signature in blue ink that reads "Laurence Ashdown".

Laurence Ashdown
Supervisor - Engineering Services
Western Ore Operations



enc.

LA/sd

cc: K. L. Prothero
N. I. Heaton
R. C. Johnson
D. J. McDaniel

MINING APPLICATION
NO. _____

Date: _____

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

CONTINUE
NOTICE OF INTENTION TO ~~XXXXXX~~ MINING OPERATIONS
(See Rule M of General Rules and Regulations)

1. Name of Applicant or Company United States Steel Corporation
Corporation (X) Partnership () Individual ()
2. Address 600 Grant Street, Pittsburgh, Pa. 15230
Permanent ~~Temporary~~
3. Name and title of person representing Company K. L. Prothero, General Superintendent
Western Ore Operations
4. Address U. S. Steel, P. O. Box 569 Office Phone (307) 332-4411
5. Location of Operation Iron Sec. 2,19,30 T. 36 S. R. 13 W. SLB&M
County
6. Name of Mine Desert Mound Mine -- Mt. Lion Pit - existing.
Homestake pit and dumps - proposed
7. Mineral to be mined:
- | | | |
|---------------------------|--------------------------|-----------------------------------|
| () Coal | () Flagstone | Mining Method:
<u>Open pit</u> |
| () Copper | () Gravel | |
| () Manganese | () Shale | |
| (X) Iron Ore | () Uranium | |
| () Phosphate | () Gilschite | |
| () Potash | () Bituminous Sandstone | |
| () Fluorspar | () Tungsten | |
| () Other (Specify) _____ | | |
8. Have you or any Person, Partnership or Corporation associated with you received an approved Notice of Intention to Commence Mining Operations by the State of Utah for operations other than described herein?
() Yes (X) No
If yes, list all approval numbers now under survey,

9. Owner/Owners of record of the surface area within the land to be affected:
- | | |
|--|---|
| <u>United States Steel Corporation</u> | Address <u>600 Grant Street</u>
<u>Pittsburgh, Pa. 15230</u> |
| <u>Utah International, Inc.</u> | Address <u>550 California Street</u>
<u>San Francisco, Ca. 94104</u> |
| <u>C.F.I. Steel Corporation</u> | Address <u>P. O. Box 316</u>
<u>Pueblo, Co. 81002</u> |
| _____ | Address _____ |

10. Owner/Owners of record of minerals to be mined:

<u>United States Steel Corporation</u>	Address <u>600 Grant Street</u> <u>Pittsburgh, Pa. 15230</u>
<u>C. F. & I Steel Corporation</u>	Address <u>P. O. Box 316</u> <u>Pueblo, Co. 81002</u>
_____	Address _____
_____	Address _____

11. Owner/Owners of record of all other minerals within any part of the land affected:

<u>Iron Rock Mine Claim -- Very small ore body</u>	Address _____
<u>L. E. Luke Family</u>	Address <u>Cedar City, Utah</u>
<u>A. E. Moreton Family</u>	Address <u>Salt Lake City, Utah</u>
<u>W. C. Murie Family</u>	Address <u>Cedar City, Utah</u>

11a. Have the above Owners been notified in writing?

() Yes (☒) No We have been mining in this area

12. Source of people have been involved in business dealings with us. They are all aware of the Operator's legal right to enter and conduct operations on land / operation. to be covered by the Notice Self owned and lease agreements

13. Approximate acreage to be disturbed: 660 acres

Mining operation area (include operations, storage, and disposal area):

	<u>Disturbed</u>	<u>Disturb</u>		
	<u>300*</u>	<u>180</u>	acres +	
Access Road or Haulageway:	<u>60</u>	<u>0</u>	acres +	<u>60 acres</u>
Plant Facilities	<u>40</u>	<u>80</u>	acres +	<u>120 acres</u>
Drainage System:			acres =	
Total Acres:	<u>400</u>	<u>260</u>	acres	<u>660 acres</u>

*Approx. 100 acres disturbed by U.I.I. Mining Oper. - yet to be used for USS mining operations.

14. Give the names and post office addresses of every principal Executive, Officer, Partner, (or Person performing a similar function) of Applicant:

	<u>Name</u>	<u>Title</u>	<u>Address</u>
a.	<u>E. B. Speer</u>	<u>Chairman, Board of Dir.</u>	<u>600 Grant Street</u> <u>Pittsburgh, Pa. 15320</u>
b.	<u>C. F. Beukema</u>	<u>Vice President & Gen. Mgr.</u>	<u>" " "</u>
c.	<u>K. L. Prothero</u>	<u>Raw Materials & Lake Shipping</u>	<u>" "</u>
d.		<u>General Superintendent</u>	<u>P. O. Box 569</u>
		<u>Western Ore Operations</u>	<u>Lander, Wyoming 82520</u>

15. Has Applicant, any Subsidiary or Affiliate or any Person, Partnership, Association, Trust or Corporation controlled by or under common control with Applicant, or any Person required to be identified by Item 14, ever had an approval of a Notice of Intention withdrawn or has surety relating thereto ever been forfeited? Yes () No (☒)

If yes, explain:

STATE OF PENNSYLVANIA

COUNTY OF ALLEGHENY

I, C. E. BEUKEMA, having been duly sworn
depose and attest that all of the representations contained in the foregoing
application are true to the best of my knowledge; that I am authorized to
complete and file this application on behalf of the applicant and this
application has been executed as required by law.

Signed: _____

Vice President & General Manager

Taken, subscribed and sworn to before me the undersigned authority
in my said county, this _____ day of _____, 19 _____.

Notary Public: _____

My Commission Expires: _____

MINING APPLICATION
NO. _____

Date: _____

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

MINING AND RECLAMATION PLAN

(Other forms may be used in lieu of MRA 2, provided they contain the same information.)

1. Name of Applicant or Company United States Steel Corporation
2. Proposed type of operation Open Pit Iron Ore Mine
3. (a) Prior Land Use(s) Pits and dumps area -- Marginal grazing wildlife habitat
Plant and road area --
(b) Current Land Use(s) Open pit mining operations & marginal grazing & wildlife
Pits, plant, dumps habitat.
(c) Possible or Prospective Future Land Use(s) & road -- marginal grazing & wildlife
habitat
4. What vegetation exists on the land proposed to be affected
Pits and dumps area -- Juniper and pinion pine trees, some cliffrose, serviceberry &
Bitterbrush. Plant & road area -- Scrub brush, grasses and weeds (sagebrush,
Rabbit brush, rice grass, cheatgrass, haladeton, thistle, annuals)
(a) Types and Estimated Percent Cover or Density:
Pits and dumps area -- 50% tree cover, a little browse in between.
Plant and road -- 50% brush cover. Scattered grass and weeds between.
5. What is the range pH of soil before mining? 8.0 - 8.5 ave. pH.
Name of Person or Agency and method of determining pH S.C.S. (Cedar City)
Pits and dumps -- Sparce, rocky soil. Rocky sidehill area.
Plant and road -- Shallow rocky soil. Disturbed years ago.
Pits and dumps -- average 6300 ft.
6. Site elevation above sea level Plant and road -- average 5650 ft.
7. In case of coal, oil shale, and bituminous sandstone:
Principal seam(s) and thickness(es) None
8. Estimated duration of mining operations Approx. 15 years more
9. Has overburden, waste or rejected materials been classified as acid or alkali producing? () Yes (x) No
Does the above material being moved have any other characterisitics affecting revegetation? Rocky
10. Will any ~~underground workings or~~ aquifers be encountered? (x) Yes () No
Describe A little ground water encountered in "Entrada" and "Iron Ore"
Is there an active discharge of water from abandoned deep mines on or crossing the land affected? () Yes (x) No If Yes, describe the quality of water being discharged. _____

11. Describe specifically a detailed procedure for:
See attached sheet.

- a. The mining sequence.
- b. The procedure for constructing and maintaining access roads, to include a typical cross-section and a profile of the proposed road grades.
- c. The procedure for site preparation including removing trees and brush.
- d. The method for removing and stockpiling topsoil or disturbed materials.
- e. The method for the placement or containment of all disturbed materials, to include the method for handling of all acid or alkali-producing and toxic material.
- f. A procedure for final stabilization of disturbed materials.

GRADING AND REGRADING Of Abandoned Dumps

Specifically describe:

- a. Typical cross-section of regrading. See attached typical cross section.
- b. The method of spreading topsoil or upper horizon material on the regraded area and indicate the approximate thickness of the final surfacing material. No topsoil available, but will experiment with use of tailings
- c. What type of soil treatment will be utilized. Contour scarifying.
- d. The method of drainage control for the final regraded area. Contour scarifying on
- e. Maximum grading slope. Approx. 38° on dump faces. dump tops.

TESTING

1. a. Describe method for testing stability of reclamation fill material.
Reclamation fill material will be used on the basis of past experience with local materials.
b. Describe method for the testing of soil that is intended to support vegetation. Basic plant nutrient tests of N.P.&K. will be performed.
2. Describe any soil treatment employed as an aid to revegetation. The truck traffic across these areas help to break the soil down. In addition, the dozers working here help and the lugs on the dozer tracks scarify the ground which allows moisture to be held and sink in.
3. Describe surface preparation of areas intended to support vegetation:
The truck traffic across these areas help to break the soil down. In addition, the dozers here help and the lugs on the dozer tracks scarify the ground which allows moisture to be held and sink in.

REVEGETATION

1. Revegetation to be completed by:

(<input checked="" type="checkbox"/>) Operator	() Hydroseeding
() Soil Conservation District	() Aerial Seeding
() Private Contractor _____	() Conventional or Rangeland Drilling
() Other (Specify) _____	() Other (Specify) _____
2. Will Mulch Be Used? We are at present experimenting with mulch in our Wyoming operations and we are not, at present, too impressed with the results of mulch.
Type _____ Rate, Acre _____ lbs.

3. Revegetation Plan and schedule -

Species	Rate/ acre	Planting location	Facing N-S-E-W	Season to to be Replanted
We have found that vegetation native to the local area is the only depend- able vegetation. As these dumps are going to be many years before they become inactive, we would like to run some test plots to find out which type of growth does best.				

4. Will affected area be subject to livestock or wildlife grazing: (x) yes
() No Will vegetation protection be needed? Marginal grazing for
livestock and a limited wildlife habitat.

5. Will irrigation be used? () Yes () No Type We would irrigate with a
water truck on a one time basis to get vegetation started but no irrigation would be
6. Describe maintenance procedures for revegetation if needed, until surety used on a
release is granted. continuing
None is planned at this time. basis.

I, the undersigned Operator, hereby submit this to be my Reclamation and
Mining plan for the area shown on the attached map. I further understand
that the operation will be conducted in accordance with the Mined Land
Reclamation Act of 1975, and all rules and regulations currently in effect
thereunder.

Signed _____ Operator, Date _____

Taken, subscribed and sworn to before me the undersigned authority
in my said county, this _____ day of _____, 19 _____.

Notary Public _____

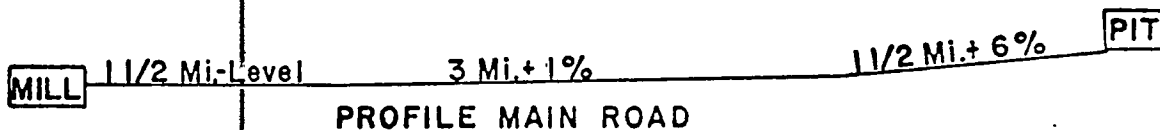
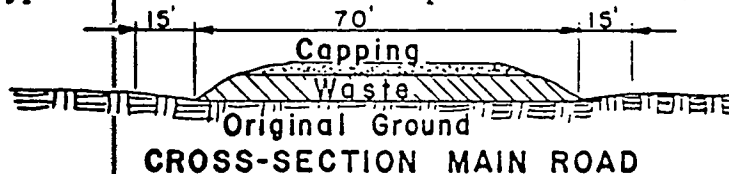
My Commission Expires: _____

Attachment for Mining Application

MRA--Form 2

11. Describe specifically a detailed procedure for:

- (a) Mining sequence (being done in a safe, orderly, minerlike fashion.)
1. Drill Ore and waste blast holes with rotary drills.
 2. Blast holes in ore and waste with ammonium nitrate.
 3. Load ore and waste into haulage trucks with power shovels.
 4. Haul waste to dumps with haulage trucks.
 5. Haul ore to crushing plant with haulage trucks.
 6. Crush and stockpile ore through crushing plant.
 7. Reclaim and load ore into railroad cars through loading plant.
- (b) Constructing and maintaining roads (Done years ago).
1. Build subgrade with on-site and pit-run waste material.
 2. Cap with fines from site or from pits.
 3. Maintain by continually grading and sprinkling.
 4. Typical cross-section and profile - main haulage road.



- (c) Site preparation (Done years ago).
1. Level off plant site and bring to grade.
 2. Build access roads to proposed plant and pit area.
 3. Remove trees from proposed pit areas.
 4. Bring in powerlines to proposed plant and pit areas.
- (d) Handling Topsoil (None to handle)
1. No topsoil in rocky mining operations area.
 2. A little topsoil in haulage road and plant areas, but it was disturbed years ago and none saved.
- (e) Handling Pit Waste (Being Done)
1. Dump waste from haulage trucks on edge of dumps.
 2. Push waste over edge of dumps with tractor.
- (f) Stabilizing Pit Waste (To be done)
1. Waste dumps are self stabilizing. No hazard.
 2. Round-off dump crests when through in conformance with surrounding topography and contour scarifying on dump tops. See attached typical cross-section.
- (g) Post Mining Operations (To be done)
1. Fence around accessible mining operation areas. (Has been done at Desert Mound and Iron Mt. Areas.)
 2. Push a rick of waste approximately 6' high around the edge of pits.
 3. Remove extraneous debris, unusable buildings, trash, and equipment.

RULE M-3

- (3) Statement giving general details of the type or method of mining existing and proposed.

The Desert Mound Mine has two adjacent ore bodies located six miles southwest along a gravel haulage road from the plant site; which is located twelve miles west of Cedar City.

The Mt. Lion ore body has an open pit mine in operation since 1953 located on a rocky sidehill with no topsoil and originally partially covered with trees. The waste material is almost all rock and is dumped nearby on undisturbed ground. In the future some waste will be dumped on ground already disturbed by Utah International.

The Homestake ore body will be an open pit mine sometime in the future, depending on iron ore requirements. It is located next to the Mt. Lion ore body under rock and a top layer of rocky alluvial. This alluvial has already been disturbed by Utah International, Inc., with their iron ore float salvage operations. The waste is almost all rock and will be dumped nearby with some of it going on ground already disturbed by Utah International, Inc., and some of it going on undisturbed ground.

The mining methods used, present and future, are:

1. Access roads built and test holes drilled.
2. Pit plans made and trees cleared.
3. Haulage roads and railroads built.
4. Plant facilities and power lines built.
5. Blast holes drilled in ore and waste with rotary drills.
6. Blasts in ore and waste shot down with ammonium nitrate.
7. Ore and waste loaded into haulage trucks with power shovels.
8. Waste hauled to dumps with haulage trucks.
9. Ore hauled to crushing plant with haulage trucks.
10. Ore crushed and stocked through crushing plant.
11. Ore reclaimed and loaded in railroad cars through loading plant.

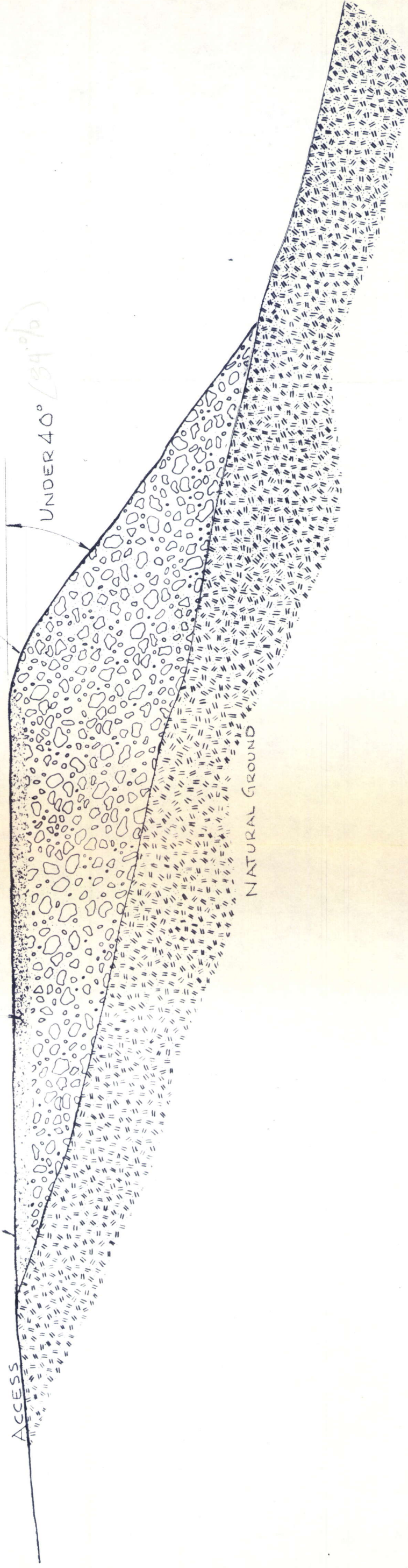


TYPICAL CROSS-SECTION
DUMP REGRADING
DESERT MOUND MINE

TOP SCARIFIED BY TRACTOR
LUGS &/OR OTHER MEANS.

TOP FOOT BROKEN-UP BY
TRUCK & TRACTOR TRAFFIC.

EDGES ROUNDED TO
A PLEASING CONFIGURATION.



REVISIONS

WESTERN ORE
UNITED STATES
Engineering



OPERATIONS
STEEL CORPORATION
Department

TITLE

DRAWN BY D.M.H.
CHECKED BY
ENG. NO.

DATE MAR. 29/77

DATE

DRAWING NO.

Y-6668

